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Shared natural resources

Comments and observations received from Governments and relevant intergovernmental organizations

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Questionnaire on shared natural resources for circulation to Governments and relevant intergovernmental organizations 44

I. Introduction

1. In its 2004 report, the International Law Commission, at the request of the Special Rapporteur, agreed that a questionnaire, prepared by the Special Rapporteur, be circulated to Governments and relevant intergovernmental organizations requesting their views regarding groundwaters.[1] In a circular note dated 23 September 2004 and a letter dated 20 September 2004, the Secretariat transmitted the questionnaire to Governments and relevant intergovernmental organizations (see annex).

2. As at 26 April 2005, responses to the questionnaire had been received from the following 20 States: Brunei Darussalam; Burkina Faso; Colombia; Denmark; El Salvador; Honduras; Kenya, Kyrgyzstan; Latvia; Monaco; Mexico, Namibia; the Netherlands; Norway; Pakistan; Poland; Qatar; the Russian Federation; the United Arab Emirates; and the United States of America. Responses were also received from three relevant intergovernmental organizations: the Centre for Environment and Development for the Arab Region and Europe; the International Boundary and Water Commission; and the Niger Basin Authority. The responses are contained in the present report and are organized, to the extent possible, on the basis of the questions posed by the Special Rapporteur.

II. Comments and observations on the questionnaire on shared resources received from Governments and intergovernmental organizations

A. Replies to section A

Are there aquifers in your State that extend beyond the national boundary?

1. Replies from Governments

Poland, Qatar and the United Arab Emirates

3. In their replies to question A, Poland, Qatar and the United Arab Emirates responded "Yes".

Brunei Darussalam

4. Brunei Darussalam does not have any aquifers that extend beyond its national boundary, nor does it have any aquifer-sharing agreement with other countries.

Burkina Faso

5. Burkina Faso reported that the significant shared groundwaters are located in the sedimentary zones, which account for approximately 18 per cent of the surface area of the country. These groundwaters are shared with Mali (a strip running from the south-west to the north) and with Benin (in the south-east).[2]

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[1] *Official Records of the General Assembly, Fifty-ninth Session, Supplement No. 10* (A/59/10), para. 81.

[2] The reply of Burkina Faso contained a map, which has been omitted and is available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

Colombia

6. Colombia borders five countries, the Bolivarian Republic of Venezuela, Brazil, Ecuador, Panama and Peru.[3] The country's aquifers extend to four of those States, the Bolivarian Republic of Venezuela, Brazil, Ecuador and Peru. Recently, there has been significant progress in the study, management and development of transboundary aquifers with the Bolivarian Republic of Venezuela and Ecuador.

7. Colombia shares the following aquifers directly with its neighbouring States:

(a) With the Bolivarian Republic of Venezuela, the Carraipia-Paraguachón River basin; the Catatumbo River basin; the Arauca River basin; and the Orinoco River basin;

(b) With Ecuador, the Carchí-Guáitara River basin, and the Mira-Mataje River basin;

(c) With Peru: the Putumayo River basin, and the Amazon River basin;

(d) With Brazil, the Amazon River basin.

Denmark

8. A Declaration exists between Denmark and Germany on the management of the catchments for the transboundary watercourses of Vidå, Kruså, Meden Å and Jardelund Grøft. The agreement is between the Ministry of the Environment of Denmark and the Ministry of the Environment, Natural Protection and Reactor Safety of Germany. Nothing specific has been agreed, in parallel, for groundwater bodies or aquifers.

El Salvador

9. El Salvador reported that it shares three international watersheds: the Río Paz basin (El Salvador/Guatemala); the Lempa River basin (El Salvador/Guatemala/Honduras); and the Goascorán River basin (El Salvador/Honduras).

10. On the Pacific Ocean side, the water area of El Salvador has been increased by 58 per cent (over 35,000 square kilometres), thanks to the surface and groundwaters it receives from Guatemala and Honduras.

Honduras

11. Honduras reported that it has aquifers in the areas bordering El Salvador, Guatemala and Nicaragua.

Kenya

12. Kenya reported that it has aquifers that extend beyond its national boundaries.

Kyrgyzstan

13. Since in some respects the responses to the questions in sections A and C coincide, the information received from Kyrgyzstan is set out below in a combined and sequential manner without regard for the order of the questions.

[3] The reply of Colombia contained a map, which has been omitted and is available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

14. In Kyrgyzstan there are international waterways in respect of which inter-State cooperation is carried out mainly within the framework of the following international agreements:

(a) Agreement of 30 April 1994 between the Government of Kyrgyzstan and the Government of Kazakhstan on the use of the inter-State water management facilities on the Chu and Talas Rivers;

(b) Agreement of 17 March 1998 between the Government of Kyrgyzstan, the Government of Kazakhstan and the Government of Uzbekistan on the use of the hydropower resources of the Syrdarya River basin.

Latvia

15. Latvia identified transboundary groundwater bodies, a list of which, including their configuration, will be updated in the near future, simultaneously with the elaboration of river basin management plans. Requirements for the monitoring and management of these objects have been defined by the national Law on Water Management, Cabinet of Ministers Regulation No. 857 of 22 October 2004, on the procedure for the review of groundwater resources and quality criteria, Cabinet of Ministers Regulation No. 92 of 17 February 2004, on requirements for monitoring of surface waters, groundwater and protected areas and the development of monitoring programmes and other relevant regulations of the Cabinet of Ministers.

Mexico

16. Mexico reported that it shares aquifers that extend beyond its national boundaries. Mexico has a long boundary in the north with the United States of America and in the south with Belize and Guatemala, totalling 4,301 kilometres.

Monaco

17. The aquifers of Monaco extend beyond its national borders.

Namibia

18. It is suspected that transboundary aquifers may exist across the boundary between Angola and Namibia in the Cuvelai Basin in southern Angola and northern Namibia, as well as between Botswana and Namibia along the boundary between the two countries, cutting across the Kalahari Desert. There may also exist transboundary aquifers between Angola, Botswana, Zambia, Zimbabwe and the Caprivi region of Namibia. The extent and potential of those aquifers have not yet been investigated.

19. As a result of the above, existing agreements on the management of shared water resources makes mention, as a point of departure, of "waters of mutual interest", including surface water and groundwater.

Netherlands

20. Aquifers, as defined in the second report of the Special Rapporteur on shared national resources (A/CN.4/539/Add.1), exist along the entire Dutch land frontier, nearly all of which can be qualified as unconfined or semi-confined aquifers.

21. Currently, water is extracted from transboundary aquifers located near Bergen op Zoom (province of Noord-Brabant) and near Denekamp (province of Overijssel).

22. In addition, a number of aquifers are situated at greater depths (500 to 600 metres beneath the surface of the earth), as well as along the entire Dutch land frontier. Examples are the Centrale Slenk aquifer, which crosses through Germany, Belgium and the Netherlands, and aquifers beneath the Rhine river valley.

23. Recent hydrogeological research has indicated that large aquifers may exist along Dutch maritime boundaries, extending throughout the continental shelf of the North Sea.

Norway

24. Norway reported that it has aquifers that extend into Finland, the Russian Federation and Sweden. However, these are only small alluvial aquifers and groundwater in crystalline rock, which are of limited commercial or ecological interest and are not sufficiently important to be the object of bilateral or international attention.

Pakistan

25. Pakistan reported that the boundaries of its groundwater(s) go beyond the State boundaries between Pakistan and India.

Russian Federation

26. The Russian Federation shares transboundary water bodies with most of its neighbouring States.

United States of America

27. The United States of America reported that there are aquifers that extend beyond the boundary with both of its neighbouring States: Canada and Mexico.

2. Replies from intergovernmental organizations

Centre for Environment and Development for the Arab Region and Europe

28. The Centre for Environment and Development for the Arab Region and Europe, which is a regional organization, has worked as the executing agency for the "Programme for the Development of a Regional Strategy for the Utilization of the Nubian Sandstone Aquifer System" during the period from 1998 to 2002. The Nubian sandstone aquifer is a shared aquifer, between Chad, Egypt, the Libyan Arab Jamahiriya and the Sudan.

International Boundary and Water Commission

29. The International Boundary and Water Commission responded in the affirmative.

Niger Basin Authority

30. The Niger Basin, with an existing transboundary aquifer, covers nine countries: Benin, Burkina Faso, Cameroon, Chad, Côte d' Ivoire, Guinea, Mali, Niger and Nigeria. The Niger Basin Authority is currently carrying out the Share

Vision process for the members countries that will comprehensively take care of integrated water resources management and development.

B. Replies to section A, question 1

If yes, are there any arrangements or agreements with your neighbouring States on the use or management of these aquifers or for any other cooperation on them?

1. Replies from Governments

El Salvador, Qatar and the United Arab Emirates

31. In their replies to question A.1, El Salvador stated "Yes" with regard to shared natural resources and "No" with regard to aquifers, while Qatar and the United Arab Emirates responded "No".

Burkina Faso

32. Burkina Faso reported, with particular reference to groundwaters, that no specific agreements had been concluded with Benin or Mali.

Colombia

33. As one of the joint managers of the project entitled "Groundwaters in the border area of Cúcuta and Villa del Rosario (Colombia) and San Antonio-Ureña (Bolivarian Republic of Venezuela)", Colombia participates, under the coordination of the Hydrology, Meteorology and Environmental Studies Institute (IDEAM), with the support of the Ministry of the Environment, Housing and Territorial Development and the Geological and Mining Research Institute (INGEOMINAS), in the Internationally Shared Aquifer Resources Management (ISARM) programme, under the auspices of the Organization of American States (OAS) and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

34. Colombia is active in the UNESCO/OAS ISARM programme for the Americas, Transboundary Aquifers of the Americas. The programme, a joint effort by the UNESCO International Hydrological Programme and the OAS Office for Sustainable Development and Environment is for the development of the ISARM programme in the Americas. The overall objective of the programme is to strengthen the knowledge base of scientific, socio-economic, legal, institutional and environmental information needed for managing transboundary aquifers all over the world. It is run by a coordination committee made up of experts from UNESCO, the International Association of Hydrogeologists, the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Economic Commission for Europe, all working within the framework of the UNESCO International Hydrological Programme.

35. The ISARM Americas programme is a regional initiative launched at the 2002 Congress of the International Association of Hydrogeologists and the Latin American Association of Hydrogeology for Development, held in Mar del Plata, Argentina.

36. The OAS Office for Sustainable Development and Environment, as the coordinating organization of ISARM Americas, has concentrated its efforts on

getting the 24 countries in the Americas that share transboundary aquifers to collaborate with the programme by furnishing basic information.

37. The joint project of Colombia and the Bolivarian Republic of Venezuela has fallen behind schedule, despite the increase in the use of groundwater in the region, owing to the meagre infrastructure available to the Regional Autonomous Corporations of the North-east Border to lead the project and lack of interest on the Venezuelan side.

38. In the Catatumbo border area, groundwater first came under discussion at the meeting held under the auspices of OAS and UNESCO in Cúcuta, Columbia, from 2 to 4 October 2004.

39. In the La Guajira border area, groundwater was discussed by the binational Commissions on Border Matters of both States, especially in the Paraguachón (Colombia) and Carraipia (Bolivarian Republic of Venezuela) area. Studies of the aquifer have been carried out and, with the assistance of the International Atomic Energy Agency (IAEA), various studies have been undertaken to better understand the aquifer within the framework of the Programme for the Integrated Protection of Groundwaters.

40. There are various kinds of agreements between countries of the region to promote technical studies, cooperation and information-sharing, some of which have been more effective than others. They include an agreement to establish the binational Technical Commission for the Comprehensive Study of Hydrographic Basins in Joint Use by Colombia and the Bolivarian Republic of Venezuela and agreements on bilateral cooperation within the framework of the Amazon Cooperation Treaty between Brazil, Ecuador and Peru.

41. Colombia also participates with the Bolivarian Republic of Venezuela in the binational Technical Commission for the Comprehensive Study of Hydrographic Basins in Joint Use, which has two technical committees, one for the Carraipia-Paraguachón river basin in the Colombian-Venezuelan Guajira region and the other for the Catatumbo river.

42. Institutions, policies and programmes that have an impact on border area matters include: the Intersectoral Commission for Border Zone Integration and Development; the National Council on Economic and Social Policy, document No. 3155/02 (Outline of a Border Zone Policy); the Commissions of Neighbours; the Programme for Border Zone Security and Development (Ministry of Foreign Affairs-Ministry of Defence); the Andean Committee of Environmental Authorities of the Commission of the Andean Community; the Regional Biodiversity Strategy; Decision No. 501 of the Commission of the Andean Community (Border Integration Zones); and the Amazon Cooperation Treaty Organization.

43. The Intersectoral Commission for Border Zone Integration and Development was established by decree No. 569 of 2001. The Commission is the political body for coordination and overall guidance, working between the central and local levels. It deals with the formulation, management and execution of border zone policy in all aspects relating to promoting the development of border areas and their integration with neighbouring countries in terms of economic, social, regulatory, cultural, environmental, scientific and infrastructure matters, taking into account the particular features of those zones.

44. The Intersectoral Commission consists of: the Minister for Foreign Affairs, who presides and acts as Executive Secretary; the Ministers of the Interior, Defence, Housing and Public Credit, Foreign Trade, Environment, Transport, Education, Health, and Mines and Energy; and the Director of the National Department of Planning. Other participants are the Directors of the National Customs and Excise Agency and the Social Solidarity Network. The Minister for Agriculture and Rural Development has also participated actively since the establishment of the Commission.

45. The Intersectoral Commission has recently charged the National Department of Planning and the Ministry for Foreign Affairs with the responsibility of coordinating the drafting of a national policy on border zone integration and development.

46. In setting out the outline of a border zone policy, the National Council on Economic and Social Policy aims to establish a framework and machinery for a border-zone development and integration policy, which would make it possible to coordinate the various national, regional and local bodies, in order to accomplish set goals. The policy document establishes the following commitments in the environmental sector:

(a) The Ministry of the Environment, Housing and Territorial Development will promote the sustainable use, conservation and promotion of biodiversity in the border areas;

(b) Working with Regional Autonomous Corporations, the Government will increase the granting of forest incentive certificates in order to accelerate restoration;

(c) Working with Regional Autonomous Corporations operating in the border areas, the Government will establish training programmes in environmental education and in the preparation of environmental profiles and inventories of natural resources, with a view to developing sustainable technologies, knowledge and the proper use of those resources;

(d) The Augustín Codazzi Geographical Institute, in cooperation with the Ministry of the Environment, Housing and Territorial Development, will design geo-referenced systems based on regional environmental information in order to identify soils, erosion, pollution and land use, as well as water and forest resources;

(e) The Institute will also support the development of land-use methodologies in the border areas and special units for border-area development in order to promote balanced and sustainable development using forward-looking scenarios;

(f) The Hydrology, Meteorology and Environmental Studies Institute will identify and allocate funding to research studies on the availability and quality of water resources and the restoration of river beds;

(g) The Ministries of Agricultural and Rural Development and of the Environment, Housing and Territorial Development will be requested to develop a policy for sustainable farming that is suited to the border areas and the special units for border-area development;

(h) The Ministry of the Environment, Housing and Territorial Development will be requested to promote the sustainable use, conservation and promotion of biodiversity in the border areas and the special units for border-area development;

(i) The Ministry of the Environment, Housing and Territorial Development and Regional Autonomous Corporations will be requested to increase the granting of forest incentive certificates in the border areas and the special units for border-area development.

47. One of the objectives of Andean integration is to promote the development of member countries of the Commission of the Andean Community and to improve the living standard of the inhabitants of the region through, inter alia, the utilization and conservation of natural resources and the environment.

48. In its decision No. 435 of 11 June 1998, the Commission of the Andean Community established the Andean Committee of Environmental Authorities, whose main purpose is to provide advice and support to the secretariat of the Andean Community in establishing its policy on the environment and to ensure monitoring, implementation and full compliance with decisions and ancillary regulations in the environmental field.

49. The establishment of the Andean Committee of Environmental Authorities is also linked to the draft regional biodiversity strategy for the countries of the Andean tropics, which was agreed to in March 1998 by the secretariat of the Andean Community and the Inter-American Development Bank (IDB), which required the establishment of a committee of environmental authorities to guide the development of the strategy.

50. Under its decision No. 501 of the Commission of the Andean Community (on border area integration zones), border area integration zones are understood to be the adjacent border regions of the member States of the Andean Community, for which policies are to be adopted and plans, programmes and projects implemented, with a view to promoting sustainable development and integration along the border areas in a joint, shared and coordinated manner so as to obtain mutual benefits, taking into account the specific features of each region.

51. The border area integration zones are being established to establish the best conditions for sustainable border-area development and integration among the member States of the Andean Community, in conformity with specified criteria.

52. With regard to the Amazon Cooperation Treaty Organization, at the level of international law, the Amazon basin is the subject of the Amazon Cooperation Treaty, which was signed in 1978 and includes the Bolivarian Republic of Venezuela, Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru and Suriname.

53. The goal of the Amazon Cooperation Treaty is to promote joint action aimed at promoting balanced development of the Amazon territories in each member State, leading to equitable and mutually beneficial results and to preservation of the environment and the conservation and rational use of the natural resources of the territories.

54. The Amazon Cooperation Treaty provides for the establishment of six special commissions to study specific matters, namely, science and technology; health; environment; indigenous affairs; tourism; and transport, communications and infrastructure.

55. The Treaty operated for 20 years with the financial support of the European Union and FAO; however, in view of the small number of achievements and practical outcomes over that long period, those donors terminated their support until the Treaty was restructured to bring it into line with international standards with regard to the preparation and submission of investment and non-investment projects and criteria of sustainable development and cost-effectiveness.

56. The functions of the Catchment Basin Commission with the Bolivarian Republic of Venezuela are as follows:

(a) To define guidelines for technical activities to be developed on shared basins and to manage political and financial support for projects that are identified;

(b) To suggest to higher authorities of the respective Governments the course of action to be followed with regard to comprehensive management of shared hydrographic basins.

57. The Commissions of Neighbours with Ecuador, Brazil and Peru establish subcommissions or thematic round tables, for instance, on the environment or on natural resources, to decide on technical activities, the management of natural resources or simply to define parameters and possible action on shared aquifers.

Honduras

58. There is an agreement between Guatemala, El Salvador, Honduras and Nicaragua, the European Union and the Central American Bank for Economic Integration, the second part of which refers to the regional programme on the management of multinational catchment basins.

Kenya

59. No, there are no arrangements or agreements with our neighbouring States on the use or management of these aquifers.

Latvia

60. At present, Latvia has no agreements (conventions) or any other official documents concluded with other States, except a previous informal (oral) agreement between Latvia and Lithuania on coordination of a groundwater monitoring programme.

Mexico

61. Minute No. 242 (northern boundary) of the International Boundary and Water Commission (IBWC) established by the 1944 United States-Mexico Water Treaty,[4] deals, to some degree, with groundwaters, although there is no overall agreement on that issue for the entire boundary.

62. IBWC Minute No. 289 establishes the agreement on the monitoring of quality of surface water and groundwater along the border between the two countries. Within the framework of these minutes, a technical agreement was drawn up, under IBWC, for the exchange of information, joint publications and the development of models for the Hueco Bolsón aquifer in the area of Ciudad Juárez, Chihuahua-El

[4] The mandate and functions of IBWC are described in detail at http://www.ibwc.state.gov.

Paso, Texas. A technical agreement was also concluded to study water quality in the transboundary aquifer of the two Nogales.

63. Information-sharing on the various aquifers along the border between the two countries has been maintained under IBWC in a spirit of cooperation.

64. For the southern boundary there are two main instruments: the Treaty on the Delimitation of the Frontier between Mexico and Guatemala, signed at Mexico City on 27 September 1882, and the Treaty on the Delimitation of the Frontier of the Colony of British Honduras, concluded between Mexico and the United Kingdom of Great Britain and Ireland, signed at Mexico City on 8 July 1893.

Monaco

65. Monaco is not bound to its neighbouring States by arrangements or agreements on the use and management of those aquifers that extend beyond its national borders, nor by any other form of cooperation in this field.

Netherlands

66. Currently, no instruments on the use or management of aquifers exist other than the general instruments on water policy that have been or are to be adopted within the context of the European Union (EU). These instruments are:

(a) Directive 2000/60/EC of the European Parliament and the Council of the European Union of 23 October 2000, establishing a framework for Community action in the field of water policy (European Water Framework Directive);

(b) Proposal for a directive of the European Parliament and of the Council of the European Union on the protection of groundwater against pollution, currently under consideration by both the Council and the European Parliament.

Norway

67. Norway replied in the negative. If questions were to arise regarding groundwaters, the following institutions would apply. For Finland and the Russian Federation, the Finnish/Russian/Norwegian border commission; for Sweden, a case-by-case approach is suggested, if needed.

Pakistan

68. There is no formal agreement on the use/mining of groundwater aquifers.

Poland

69. The Polish-German agreement on cooperation in water management of transboundary waters, which came into force in 1996, the Polish-Czech Agreement on cooperation in the area of water management of transboundary waters with the Czechoslovak Republic (1956) is in force by succession, and the conditions of the new agreement with the Czech Republic are currently being negotiated; the Polish-Ukrainian agreement on cooperation in water management of transboundary waters, which came into force in 1999; and agreements with Lithuania and Belarus currently being negotiated.

Russian Federation

70. As the use and conservation of transboundary water bodies must be regulated, the Russian Federation has concluded agreements of cooperation for the protection and rational use of transboundary water bodies with Belarus, Estonia, Finland, Kazakhstan, Mongolia and Ukraine. The agreements with Belarus, Kazakhstan, Mongolia and Ukraine relate, in addition, to transboundary groundwater. Moreover, a quadripartite agreement has been concluded with Belarus, Kazakhstan and Tajikistan regarding fundamental principles of collaboration in the rational use and protection of transboundary water bodies.

71. No special multilateral or bilateral agreements on transboundary aquifers have been concluded.

United States of America

72. In 1973, under the auspices of the United States-Mexico IBWC, the United States and Mexico concluded Minute No. 242, which commits each country to specific annual pump limitations in the Arizona-Sonora boundary area; it also contains a commitment to mutual consultation prior to any new development of ground or surface water resources that might adversely affect the other country.

73. Minute No. 242 was agreed, pending conclusion by the United States and Mexico of a "comprehensive agreement on groundwater". To date, such an agreement has not been concluded.

74. Annex 16 to the 1978 Great Lakes Water Quality Agreement between the United States and Canada addresses groundwater contamination affecting the boundary waters of the Great Lakes system. It is a limited cooperation arrangement, rather than a comprehensive management or utilization agreement.

2. Replies from intergovernmental organizations

Centre for Environment and Development for the Arab Region and Europe

75. The Centre for Environment and Development for the Arab Region and Europe reported that there is an agreement on the establishment of the "Joint Authority for the Study and Development of the Nubian Sandstone Aquifer"; and that there are two agreements for continuous data collection and for data exchange. Within the context of the data collection agreement, the four countries agreed to share the data consolidated throughout the implementation of the programme and incorporated into a regional information system. It was also agreed to share the information that would be collected, according to the terms of the data exchange agreement, by updating the regional information system, to be implemented in an Internet environment enabling online access to updates. However, the Internet environment for data-sharing and exchange has not yet been implemented owing to lack of funds.

76. Within the context of the agreement on data exchange, it was agreed that information would be updated through the continuous monitoring of extraction rates at certain extraction sites, quality measurements and water-level measurements in specified locations. This information would be shared with the other countries concerned.

International Boundary and Water Commission

77. Minute No. 242 of IBWC deals, to some extent, with groundwaters, although there is no general agreement on the matter for the entire border area.

78. In addition, IBWC Minute No. 289 establishes an agreement on the observation of the quality of surface and underground waters along the border between the two countries.

79. In the context of the above-mentioned Minutes, a technical agreement was drawn up by IBWC on exchanging information, issuing joint publications and developing models for the Bolsón del Hueco aquifer in the area of Cuidad Juárez, Chihuahua, Mexico, and El Paso, Texas, United States.

80. A technical agreement was also drawn up for a study of the quality of water in the transboundary aquifer of Ambos Nogales.

81. In addition, information has been exchanged in a spirit of cooperation between the IBWC members on the various aquifers along the border between the two countries.

Niger Basin Authority

82. The Niger Basin Authority reported that arrangements will be effected through the Share Vision process currently under way in the Niger Basin.

C. Replies to section A, question 2

If yes, please provide with a copy of the agreements/arrangements

1. Replies from Governments

Kenya, Namibia, Norway, Pakistan and Qatar

83. In their replies to question A.2, Kenya, Namibia, Norway, Pakistan and Qatar indicated that the question was "Not applicable", while Namibia reported "No response".

Colombia

84. Copies of decision No. 435 of the Andean Committee of Environmental Authorities; decision No. 501 on border area integration zones of the Andean Community; and National Council on Economic and Social Policy document No. 3155 of 2002 have been submitted in Spanish and are available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

Denmark

85. A copy of the declaration between Denmark and Germany regarding the management of the catchments for the transboundary watercourses of Vidå, Kruså, Meden Å and Jardelund Grøft has been submitted.

86. The text, in Danish and German, is available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

El Salvador

87. El Salvador replied that there is a close relationship between natural resources and aquifers: infiltration and percolation of rainwater to phreatic levels (aquifers) depend to a large extent on how natural resources such as forests, soils for agricultural use, soils for stock-raising use, soil conservation practices and protected areas are managed.

88. A copy of the treaty between El Salvador, Guatemala and Honduras on the implementation of the Trifinio Plan have been submitted in Spanish and are available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

Kyrgyzstan

89. Copies of the Agreement of 30 April 1994 between the Government of Kyrgyzstan and Kazakhstan on the use of the inter-State water management facilities on the Chu and Talas Rivers and the Agreement of 17 March 1998 between Kyrgyzstan, Kazakhstan and Uzbekistan on the use of the hydropower resources of the Syrdarya River basin have been submitted in Russian and are available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

Mexico

90. Copies of the following agreements and text of legislation have been submitted in Spanish and are available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat:

(a) Treaty on the Delimitation of the Frontier between Mexico and Guatemala, signed in Mexico City on 27 September 1882;

(b) Treaty on the Delimitation of the Frontier of the Colony of British Honduras, concluded between Mexico and the United Kingdom of Great Britain and Ireland, signed in Mexico City on 8 July 1893;

(c) Convention establishing an International Boundary Commission to resolve questions arising in the course of the Rio Grande and the Colorado River, signed at Washington, D.C., on 1 March 1889, and the Convention setting an indefinite term to that stipulated in the Convention of 22 December 1899, signed at Washington, D.C., on 21 November 1900;

(d) Mexican Water Treaty, concluded between Mexico and the United States of America on 3 February 1944;

(e) Exchange of notes between Mexico and Guatemala constituting an Agreement on the Establishment of an International Boundary and Water Commission (IBWC-South), signed in Guatemala on 9 November and 21 December 1961;

(f) Treaty to strengthen the International Boundary and Water Commission (IBWC-South), signed at Mexico City on 17 July 1990;

(g) IBWC Minute No. 242, entitled "Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River", signed at Mexico City on 30 August 1973;

(h) IBWC Minute No. 289, entitled "Observation of the Quality of the Waters along the United States-Mexico Border", signed at El Paso, Texas, on 13 November 1992;

(i) Joint report of the principal engineers relative to the exchange of information and mathematical modelling of the aquifer in the area of Ciudad Juárez, Chihuahua and El Paso, Texas (IBWC-North), signed at El Paso, Texas, on 2 December 1997;

(j) IBWC joint report of the principal engineers relative to the joint monitoring of the quality of the groundwaters to determine the presence of anthropogenic contaminants in the transboundary aquifer in the Nogales, Arizona/ Nogales, Sonora area (IBWC-North), signed at El Paso, Texas, on 25 January 1996;

(k) The decree to amend, supplement and repeal various provisions of the Law on National Waters;

(l) The Law on National Waters.

Netherlands

91. The Netherlands reported that for information on the relevant European Union instruments, the European Commission should be consulted.

Poland

92. Agreements are not available in the English language. Poland noted that copies in national languages may be submitted upon request.

Russian Federation

93. The Russian Federation noted that copies of the relevant agreements had been transmitted directly to the Special Rapporteur, Chusei Yamada, in March 2004.

United States of America

94. The United States of America drew the attention of the Special Rapporteur to the following websites: http://www.ibwc.state.gov/files/minutes/min242.pdf for Minute No. 242 of 1973; and http://www.epa.gov/glnpo/glwqa/1978/annex.html#ANNEX%2016 for annex 16 to the 1978 Great Lakes Water Quality Agreement between the United States and Canada.

2. Replies from intergovernmental organizations

Centre for Environment and Development for the Arab Region and Europe

95. The texts of the agreement for the establishment of the Joint Authority (original in Arabic), the agreement for continuous data collection, and the agreement on data exchange have been submitted and are available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

International Boundary and Water Commission

96. Copies of International Boundary Water Commission Minutes No. 242 and No. 289, as well as of the technical agreements for Ciudad Juárez, El Paso and Ambos

Nogales, have been submitted in Spanish and are available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

Niger Basin Authority

97. The Niger Basin Authority reported that copies of relevant agreements/ arrangements are not yet available.

D. Replies to section A, question 3

Are there joint bodies/mechanisms among the States concerned on the management or other cooperation on these aquifers?

1. Replies from Governments

El Salvador, Latvia, Namibia, Norway and Qatar

98. In their replies to question A.3, Namibia responded "Yes", Latvia, Norway and Qatar responded "No" and El Salvador responded "No" with regard to aquifers and "Yes" with regard to shared natural resources; and Pakistan replied "Not applicable".

Burkina Faso

99. Benin, Burkina Faso and Mali are members of the Niger Basin Authority, an intergovernmental organization established in 1980 with a total membership of nine States. One of the organization's objectives is the implementation and monitoring of a well-ordered and rational regional policy on the use of surface waters and groundwaters from the basin.

Colombia

100. Colombia and the Bolivarian Republic of Venezuela have established binational Commissions on Border Matters, which report directly to the Office of the President of the Republic and are composed of civil servants from various departments that support each of the topics concerned. For instance, the Groundwater Commission is comprised of representatives from the Ministry of the Environment, Housing and Territorial Development, the Geological and Mining Research Institute, the Hydrology, Meteorology and Environmental Studies Institute and regional support bodies (Regional Autonomous Corporations) and their counterparts on the Venezuelan side.

Denmark

101. There are no joint arrangements or bodies regarding the management of these aquifers, which are governed by the respective national legislation.

Honduras

102. There is an agreement between El Salvador, Guatemala, Honduras, Nicaragua, the European Union and the Central American Bank for Economic Integration, the second part of which refers to the regional programme on the management of multinational catchment basins.

103. The aforementioned agreement is contained in addendum 3 to ALA Agreement 8912, revised, of 30 June 2002. The agreement contains the following relevant paragraphs:

> "Moreover, given the dwindling availability of groundwater, which is becoming an important source of water supply, sensitization and training programmes must be launched with a view to preventing pollution from sewage, residual toxins from agricultural activities and solid waste dumps;
>
> "To help improve the quality of life of the populations of the municipalities in the border areas of Central America, through actions aimed at reducing poverty and vulnerability and strengthening capacities for management and social participation;
>
> "To help improve the quantity and quality of water in shared catchment areas, thus preventing the outbreak of potential international conflicts concerning their use and protection;
>
> "Main activities to be carried out to achieve result 3: 'Organizations, institutions and local governments are coordinating and articulating development actions bearing in mind the interests of local communities in selected microregions';
>
> "The idea is to promote the development of transboundary areas and shared catchment basins ...;
>
> "Encouraging the establishment of a common policy framework for work in shared catchment basins and border areas;
>
> "In the shared catchment basins, programme activities will be carried out in four multinational catchment basins in five of the seven countries comprising the Central American isthmus;
>
> "Support will also be provided for the establishment and operation of shared catchment basin authorities."

Kenya

104. Kenya replied that there are no joint bodies/mechanisms among the States concerned on the management of, or other cooperation on, these aquifers.

Mexico

105. With respect to the country's northern boundary, the IBWC is responsible for monitoring and implementing international boundary and water treaties, regulating and implementing the rights and obligations resulting from those treaties and settling any differences that may arise as a result of their application. IBWC is an international body, composed of a United States Section and a Mexican Section, each headed by an Engineer-Commissioner appointed by the president of his/her respective country.

106. For the southern boundary, there are two international commissions, which act independently of each other: the International Boundary and Water Commission between Mexico and Guatemala, which is composed of a Mexican Section and a Guatemalan Section; and the International Boundary and Water Commission between Mexico and Belize, which is composed of a Mexican Section and a Belizean Section. Each Commission is an international body formulating recommendations and submitting

them to the Governments of Mexico and Guatemala or, in the latter case, the Governments of Mexico and Belize, to settle bilateral boundary and water issues.

Netherlands

107. The Netherlands reported that at present no such body exists.

Poland

108. Poland reported the existence of the following bodies/mechanisms: the International Commission for the Protection of the Odra River against Pollution; the Polish-German Commission on Transboundary Waters; the Polish-Czech Commission on Transboundary Waters; the Polish-Slovak Commission on Transboundary Waters; the Polish-Ukrainian Commission on Transboundary Waters; and the Polish-Belarussian Commission on Transboundary Waters.

Russian Federation

109. As part of the cooperation agreements on the protection and rational use of water bodies, joint commissions for the protection and rational use of transboundary water bodies have been established or plenipotentiaries of the parties appointed. The agreements themselves determine the competence of the joint commissions and plenipotentiaries.

110. Within the Commonwealth of Independent States, the condition and use of water resources from transboundary water bodies, including transboundary aquifers, is handled by the Intergovernmental Council for Exploration, Exploitation and Protection of Mineral Natural Resources of the States members, in the context of the development of appropriate methods. The Council prepared draft interim methodological recommendations for monitoring the geological environment of border territories, including groundwater, which lay down principles and methods for monitoring the condition and use of groundwater of transboundary aquifers.

United States of America

111. As stated in paragraph 61 above, the work of IBWC, established by the 1944 Water Treaty between the United States and Mexico, and that of its precursor, the International Boundary Commission, established in 1889, has been devoted almost entirely to surface water issues.

112. The International Joint Commission was established by the 1909 Boundary Waters Treaty between the United States and Canada.[5] As with IBWC, the work of the Commission has been devoted almost exclusively to surface water issues.

2. Replies from intergovernmental organizations

Centre for Environment and Development for the Arab Region and Europe

113. The Centre for Environment and Development for the Arab Region and Europe reported on the existence of the Joint Authority for the Study and Development of the Nubian Sandstone Aquifer.

[5] The International Joint Commission is a joint mechanism established by agreement; see http://www.ijc.org.

International Boundary and Water Commission

114. IBWC has jurisdiction over matters pertaining to boundaries and waters between Mexico and the United States of America, and in that context, it has coordinated exchanges of information and joint studies.

Niger Basin Authority

115. The Niger Basin Authority reported that the Ministries of Water Resources of the nine member countries are charged with transboundary water resources management. There also exist transboundary aquifer projects, such as the Lullemeden aquifer development project, which is currently under way, covering Mali, Niger and Nigeria.

E. Replies to section A, question 4

If yes, please provide with information describing the legal basis, role and function of the joint bodies/mechanisms

1. Replies from Governments

Kenya, the Netherlands, Norway, Pakistan and Qatar

116. In their replies to question A.4, Kenya, the Netherlands, Norway, Pakistan and Qatar responded "Not applicable".

Burkina Faso

117. For the moment, the relevant existing agreement is the Convention establishing the Niger Basin Authority, the principal objective of which is to promote cooperation among member States in the areas of energy, water, agriculture, stockbreeding, fishing and fish farming, forestry and forest exploitation, transport and communications and industry.

Colombia

118. The legal instruments that define the roles and functions of the agencies, bodies and mechanisms comprise the following: Act No. 1911 of 1995, Decree No. 569 of 2001 and Decree No. 523 (Regional Biodiversity Strategy).

El Salvador

119. Transboundary natural resources (transboundary water basins) are managed by the Office of the Vice-President of the Republic through:

(a) The Trifinio Plan, a project that has received funding from the International Atomic Energy Agency (IAEA);

(b) The Trinational Sustainable Development Programme of the Upper Lempa River Basin, involving El Salvador, Guatemala and Honduras. This programme is linked to the Trifinio Plan;

(c) The Binational Master Plan for the Paz River Basin, involving El Salvador and Guatemala. An agreement between the two countries has been proposed.

120. All the above have a direct bearing on natural resources and aquifers.

Mexico

121. IBWC-North: the Convention for the establishment of an International Boundary Commission to resolve questions raised by the course of the Rio Grande and the Colorado Rivers, dated 1 March 1889, and the Convention setting an indefinite term to that stipulated in the Convention of 22 December 1899, for the review and judgement of cases submitted to the International Boundary Commission, were the conventions whereby, on a provisional basis and a definitive basis, respectively, IBWC was established. The Commission's function is to monitor the observance of international boundary and water treaties, to assist the Government of Mexico in diplomatic negotiations of relevant international agreements and to operate and maintain the infrastructure established under those agreements, ensuring territorial integrity and promoting water resource conservation with civic participation within a framework of transparency and teamwork.

122. IBWC-South: the legal framework of IBWC-South comprises the exchange of notes between Mexico and Guatemala constituting the Agreement on the Establishment of an International Boundary and Water Commission, dated 9 November and 21 December 1961, signed in Guatemala, and the Treaty to strengthen the International Boundary and Water Commission, signed at Mexico City on 17 July 1990.

123. A main function of the Commission is to advise the Governments of the two countries on matters related to boundaries and the waters of international rivers. It also has the authority to conduct research and studies and to carry out construction projects. The matters dealt with by the Commission, which must be submitted for the consideration of the Governments, fall under the jurisdiction of the Ministries of Foreign Affairs of Mexico and Guatemala.

124. IBWC-South for Mexico-Belize: the legal framework of IBWC-South for Mexico-Belize comprises the exchange of notes establishing IBWC for Mexico and Belize, dated 6 July and 6 November 1993.

125. The Commission is responsible for research and study for the purpose of advising and issuing recommendations to the Governments of both countries on matters under its jurisdiction.

Namibia

126. Namibia reported that joint bodies/mechanisms are regulated by the agreements based on customary international water law and best practices.

Poland

127. All Commissions have been established on the basis of governmental agreements.

United States of America

128. As stated above, comprehensive information concerning IBWC is available at http://www.ibwc.state.gov. Information on the International Joint Commission is available at http://www.ijc.org. The underlying agreements may also be found on these websites.

2. Replies from intergovernmental organizations

Centre for Environment and Development for the Arab Region and Europe

129. The Joint Authority for the Study and Development of the Nubian Sandstone Aquifer was established in 1992, with its headquarters in Tripoli, Libyan Arab Jamahiriya, with branch offices in member countries. The tasks of the Joint Authority are as follows:

(a) Collection of all information, data and results of studies carried out by relevant countries. Classifying, analysing and correlating such information, data and study results;

(b) Preparation and execution of all complementary studies required for the determination of the complete features of this aquifer as to quantity and quality;

(c) Development of programmes and plans for the utilization of water, proposal of a common policy for the development and utilization of water resources, both nationally and regionally, execution of a common policy for water resources and the drawing up of plans, programmes and necessary frameworks for its execution;

(d) Adoption of a scientific basis for water management of the aquifer;

(e) Establishment of cooperation in the field of training and activities related to water resources;

(f) Rationalization of the utilization of the waters of the Nubian sandstone aquifer by member countries;

(g) Study of the environmental aspects of aquifer groundwater development, desertification control and renewable energy use;

(h) Organization of symposiums and dissemination of information on the Nubian sandstone aquifer, and consolidation of relationship with relevant regional and international organizations and institutions.

130. The Board of Directors of the Joint Authority consists of three members from each member country, who are named by the concerned ministers of their respective countries. The chairmanship of the Board is on a one-year rotation basis.

International Boundary and Water Commission

131. The copy of the 1944 Water Treaty, under which IBWC was created, and Minute No. 242 was signed, is available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

F. Replies to section B

For federated States: are there domestic aquifers in your State that extend over the boundaries of political subdivisions?

1. Replies from Governments

Burkina Faso, Kenya, Latvia, Mexico, Monaco, the Netherlands, Norway, Poland, Qatar, the United Arab Emirates and the United States of America

132. In their replies to question B, Mexico, the United Arab Emirates and the United States of America responded "Yes"; Burkina Faso and Poland responded that they were not federated States; Kenya, Latvia, Monaco, the Netherlands, Norway and Qatar responded by indicating "Not applicable". Kyrgyzstan responded that questions in section B did not concern it.

Colombia

133. Colombia does not have a federal system. It is, however, subdivided into 32 departments, each with its own governor. The Ministry of the Environment, Housing and Territorial Development formulates environmental policy at the national level. At the regional level, there is a geopolitical division into Regional Autonomous Corporations, the highest authorities regarding environmental issues for a single department and, at times, for two or more departments. There are urban environmental units for department capitals having more than 1 million inhabitants. The country has a total of 40 environmental authorities.

134. In view of the above, it is easy to understand that aquifers may extend to the territorial jurisdiction of various political and environmental administrative authorities.

El Salvador

135. Given that El Salvador is not a federated State and its political-administrative subdivisions are departments and municipalities, that the entire territory of the country is on the Pacific watershed and that all surface and underground waters drain into the Pacific Ocean, aquifers and their recharge areas run through municipalities and departments at the underground level, taking as a basis the subsoil of the entire country.

Namibia

136. Namibia is divided into 13 regions. Some regions have aquifers extending across their boundaries, but the management of those resources are controlled centrally by the Department of Water Affairs in the Ministry of Agriculture, Water and Rural Development.

Pakistan

137. Pakistan reported that it does have groundwater aquifers extending into provincial boundaries.

Russian Federation

138. Cooperation between the component entities of the Russian Federation regarding the extraction and use of groundwater is governed by current Russian legislation on mineral resources and water and does not require that those component entities conclude separate agreements with each other.

2. Replies from intergovernmental organizations

International Boundary and Water Commission

139. IBWC replied in the affirmative.

G. Replies to section B, question 1

If yes, are there any arrangements or agreements among them on the use or management of such aquifers or for any other cooperation on them?

1. Replies from Governments

Kenya, Namibia, Norway, Qatar and the United Arab Emirates

140. In their replies to question B.1, the United Arab Emirates stated "No"; Namibia stated "No response", while Kenya, Norway and Qatar responded "Not applicable".

Colombia

141. Technical and scientific cooperation may take place by agreement. If there is sufficient information about the aquifer, inter-agency technical and scientific committees are formed with the participation of State bodies that deal with research, administration and resource management. Examples of such arrangements include the Hydrology, Meteorology and Environmental Studies Institute, the Geological and Mining Research Institute and public service companies (in the case of Tunja, Santa Marta, Sincelejo, Bogotá, San Andrés and other cities). Bodies responsible for the exploration and management of hydrocarbon data, such as ECOPETROL and the National Hydrocarbon Agency (in the case of the Morroa aquifer), may also be involved.

142. Once information about the aquifer has been obtained, management plans are drawn up with a view to guaranteeing sustainable use and supply in terms of quality and quantity.

143. With the support of the Government of the United Kingdom of Great Britain and Northern Ireland and IAEA, the Programme for the Integrated Protection of Groundwaters in Colombia was implemented and has been successfully developed in the Cauca Valley and on San Andrés island. Development is currently under way in the municipality of Pereira and in the departments of La Guajira and Sucre.

El Salvador

144. El Salvador reported no such arrangements or agreements.

Mexico

145. Water management in Mexico is regulated by the Law on National Waters, managed by the National Water Commission. States participate as members of river basin councils, which are instruments of coordination, consensus-building, support, consultation and advice. Both States and individuals can obtain water concessions from the National Water Commission.

Pakistan

146. Pakistan reported no such arrangements or agreements.

United States of America

147. In the United States, there are both state and federal laws that pertain to water management. There are many interstate arrangements and agreements on surface water management; there are fewer that also address groundwater management. Examples of the latter include the Republican River Compact and the Arkansas River Compact.

2. Replies from intergovernmental organizations

International Boundary and Water Commission

148. Water management in Mexico is regulated by the Law on National Waters, which is administered by the National Water Commission The states participate as members of river basin councils, which provide coordination, consensus-building, support, consultation and advice. The National Water Commission is empowered to grant concessions to states and individuals.

Niger Basin Authority

149. Arrangements will be effected through the Share Vision process currently under way regarding the Niger Basin.

H. Replies to section B, question 2

If yes, please provide with similar information as described in questions A.2 to A.4

1. Replies from Governments

Kenya, Namibia, Norway, Pakistan and Qatar

150. In their replies to question B.2, Namibia indicated "No response", while Kenya, Norway, Pakistan and Qatar stated "Not applicable".

Colombia

151. Copies of the guide for the presentation of groundwater projects; the executive summary of the Programme for the Integrated Protection of Groundwaters in Colombia and the instrument establishing the aquifers at Morroa, Sucre, and elsewhere were submitted in Spanish and are available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

Mexico

152. A copy of the Law on National Waters (Official Journal of the Federation, 29 April 2004) was submitted in Spanish and is available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

United States of America

153. Information on the aforementioned illustrative compacts, the Republican River Compact and the Arkansas River Compact may be found at: http://water.state.co.us/wateradmin/RepublicanRiver.asp and http://waterknowledge.colostate.edu/1948_ark.htm.

2. Replies from intergovernmental organizations

International Boundary and Water Commission

154. A copy of the Law on National Waters was submitted in Spanish and is available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

155. The Niger Basin Authority responded "Not yet available".

I. Replies to section C

If the answer to questions A.1 and B.1 is yes, please answer the following questions on the contents of the agreements or arrangements

Replies from Governments

Kenya, Latvia, Monaco, Norway, Pakistan and Qatar

156. In their replies to question C, Latvia stated that the answer to questions A.1 and B.1 is "No", while Kenya, Monaco, Norway, Pakistan and Qatar responded "Not applicable".

Denmark

157. There are no arrangements between Denmark and Germany regarding the allocation of water resources. There are also no provisions on the use or joint management/control of water resources.

158. A few years ago, the county of South Jutland participated in a project on groundwater in the region. The project report is available on the county homepage on the Internet.

United States of America

159. The United States is not sufficiently familiar with the details of state water compacts to answer the questions in section C with respect to the agreements covered by question B.1.

J. Replies to section C, question 1

Are there any provisions on the allocation of water resources?

1. Replies from Governments

El Salvador, Kenya, Poland and Qatar

160. In their replies to question C.1, El Salvador and Poland responded "No", while Kenya and Qatar stated "Not applicable".

Burkina Faso

161. The Convention establishing the Niger Basin Authority does not contain any provisions on the allocation and use of water resources or the joint management or control of those resources.

Colombia

162. Colombia reported no provisions on the allocation of water resources. Inter-agency cooperation agreements are directed at water research and administration. To date, no exercise has been carried out on the allocation of groundwater resources.

Kyrgyzstan

163. Kyrgyzstan replied that since the responses to the questions in sections A and C coincide to some extent, the information below is set out in a combined and sequential manner, without regard for the order of the questions.

164. The position of Kyrgyzstan on issues related to the regulation of hydropower relations with Central Asian States is set forth in the law of Kyrgyzstan on inter-State use of water structures, water resources and water management facilities of 29 June 2001. It is also based on the principles and norms of general international law, in particular, the Convention on the Law of the Non-navigational Uses of International Watercourses, adopted by the General Assembly in 1997.

165. In accordance with article 2 of the agreement between Kyrgyzstan and Kazakhstan on the use of inter-State water management facilities, the parties include among inter-State water management facilities the following water management facilities owned by Kyrgyzstan:

(a) The Orto-Tokoisk reservoir;

(b) The Chuisk ferro-concrete water supply canals on the Chu River from the Bystrovsk hydroelectric power station to the town of Tokmok;

(c) The western and eastern greater Chuisk canals and facilities;

(d) The Chumyshsk hydro-engineering complex on the Chu River;

(e) The Kirovskoye reservoir on the Talas River.

166. In order to implement the agreed system for the use of the hydropower resources of the Syrdarya River basin to meet irrigation and energy needs under the agreement between the Governments of Kazakhstan, Kyrgyzstan and Uzbekistan on

the use of hydropower resources of the Syrdarya River basin of 17 March 1998, bilateral intergovernmental agreements on the use of the hydropower resources of the Naryn-Syrdarinsk reservoir system are signed every year.

167. Despite the requirements of the above-mentioned agreement of 17 March 1998, Uzbekistan has not signed annual bilateral intergovernmental agreements since 2003.

168. By its refusal to sign a protocol on the use of the hydropower resources of the Naryn-Syrdarinsk reservoir system in 2003 and the first quarter of 2004, pursuant to the protocol between Kazakhstan, Kyrgyzstan and Uzbekistan on the use of the hydropower resources of the Naryn-Syrdarinsk reservoir system, Uzbekistan violated the following international legal obligations:

(a) Article 8, paragraph 1, of the agreement between Kazakhstan, Kyrgyzstan and Uzbekistan on the use of the hydropower resources of the Syrdarya River basin states: "The regime of operation of reservoirs, exchanges of electric power and supplies of power transmitters shall be confirmed by annual inter-governmental agreements ...";

(b) Article 3 of the agreement states: "The parties undertake not to engage in action violating the agreed regime for water use and supplies of power, and also infringing on the rights of other parties to receive mutually agreed quantities of water and supplies of power and transit through their territory";

(c) Article 4, paragraph 2, of the protocol between Kazakhstan, Kyrgyzstan and Uzbekistan on the use of the hydropower resources of the Naryn-Syrdarinsk reservoir system in 2003 and in the first quarter of 2004, which entered into force on the date of its signature, states: "The specific types and volume of transactions and the unit prices of output supplied and of services shall be governed by bilateral protocols between Kyrgyzstan and Kazakhstan, and between the Government of Kyrgyzstan and the Government of Uzbekistan."

169. Currently, in follow-up to the proposal of Kazakhstan, a new draft framework agreement is being drawn up between the Governments of Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan on the use of the hydropower resources of the Syrdarya River basin. It was taken up at a meeting of experts at the level of ministers responsible for the hydropower installations of States members of the Central Asian Cooperation Organization in Bishkek on 14 and 15 March 2005.

170. Uzbekistan did not take part in that meeting, however, and is generally taking a counterproductive position on issues related to hydropower cooperation by not implementing previously concluded international agreements and not participating in the formulation of new agreements.

171. Kyrgyzstan advocates the development of mutually advantageous cooperation on all regional issues, including issues in the hydropower sphere, in accordance with international law, and attaches great importance to the rational and effective use of the hydropower resources of Central Asia.

Mexico

172. Mexico replied in the affirmative, specifying, however, that there was an arrangement for only one boundary aquifer.

Namibia

173. Namibia reported that no international agreements exist that provide for the allocation of groundwater resources. As far as the allocation of surface water sources are concerned, there is an agreement between Angola and Namibia that each State is entitled to use half of the waters of the Kunene River. The current yield of the Orange River is regulated by storage dams in South Africa. There is an arrangement between South Africa and Namibia that Namibia is entitled to abstract up to 110 million cubic metres of water per annum from those dams until new infrastructure has been established to regulate the flow of the Orange River for Namibian purposes as well.

Netherlands

174. The Netherlands replied that there was no arrangement at present. For questions relating to the content and interpretation of the European Commission Water Framework Directive and of the proposed Groundwater Directive, the Commission should be consulted.

Russian Federation

175. Allocation of water resources is not dealt with in the agreements, which specify that such matters shall be decided by agreement between the parties. For example, they "determine intergovernmental allocation of water resources for particular water bodies, taking account of the ecological discharge level" or "approve programmes for the comprehensive use and protection of water resources or water-management balances of transboundary water bodies".

United States of America

176. With respect to the United States and Mexico, IBWC Minute No. 242 between the two countries contains certain pumping limitations for each party.

2. Replies from intergovernmental organizations

Centre for Environment and Development for the Arab Region and Europe

177. The Centre for Environment and Development for the Arab Region and Europe replied there are no provisions on the allocation of water resources in the agreements mentioned in reply to question A.1. However, during the implementation of the "Programme for the Development of a Regional Strategy for the Utilization of the Nubian Sandstone Aquifer", a mathematical model was used for the simulation of extraction scenarios, based on the future development plans of the countries of the region. Simulations up to 2060 had been carried out, and a strategy for utilization recommended, including the abstractions per development area within the aquifer. Those recommendations were presented and endorsed by the official representatives of the four affected countries.

International Boundary and Water Commission

178. IBWC replied in the affirmative; these focus on only one aquifer along the border.

Niger Basin Authority

179. The Niger Basin Authority Shared Vision process will provide for allocation of shared water resources among member States.

K. Replies to section C, question 2

If yes, please describe the arrangement, how it works and whether there are any areas where improvements might be needed

1. Replies from Governments

El Salvador, Kenya, Namibia, the Netherlands, Pakistan and Qatar

180. In their replies to question C.2, El Salvador responded in the negative, while Namibia noted "No response" and Kenya, the Netherlands, Pakistan and Qatar stated "Not applicable".

Colombia

181. Although there are no such arrangements, several aspects should be improved. Consideration is being given to a proposal for the issuance of the Water Act, put forward with the support of the Ministry of the Environment, Housing and Territorial Development and the Congress of the Republic. It covers, inter alia, exploration, exploitation, protection of recharge zones, usage rates, procedures and jurisdiction.

Mexico

182. Point 5 of IBWC Minute No. 242 establishes that pending the conclusion of a comprehensive agreement, each country shall limit pumping of groundwaters within its territory to 197,358,000 cubic metres annually, within 8 kilometres of the boundary. However, point 6 establishes the obligation for reciprocal consultation prior to undertaking any new development of either the surface or the groundwater resources or undertaking substantial modifications of current developments that might adversely affect the other country.

United States of America

183. With respect to the United States and Mexico, IBWC Minute No. 242 between the two countries specifically provides that each party shall limit pumping of groundwaters in its territory within 5 miles of the Arizona-Sonora boundary near San Luis to 160,000 acre-feet (197,358,000 cubic metres) annually. It also provides that the two parties shall consult with each other prior to undertaking any new development of either the surface or the groundwater resources or undertaking substantial modifications of then-current developments in its own territory that might adversely affect the other country. There are no provisions on the use of groundwater resources beyond those described above.

184. With respect to the United States and Canada, annex 16 to the 1978 Great Lakes Water Quality Agreement addresses groundwater contamination affecting the boundary waters of the Great Lakes system. It does not contain any provisions on allocation. It also does not contain any provisions on uses. It provides that the two

sides will, inter alia, cooperate to identify existing and potential sources of groundwater and "control the sources of contamination of groundwater and the contaminated groundwater once the problem has been identified".

2. Replies from intergovernmental organizations

International Boundary and Water Commission

185. Point 5 of IBWC Minute No. 242 between Mexico and the United States provides that, pending the conclusion of a comprehensive agreement on groundwaters in the border areas, each country shall limit pumping of groundwaters in its territory within 8 kilometres of the Arizona-Sonora boundary near San Luis to 197,358,000 cubic metres annually. No specific provisions are made for distribution along the rest of the border area, but point 6 establishes that the two countries shall consult with each other prior to undertaking any new development of either the surface or the groundwater resources, or undertaking substantial modifications of present developments that might adversely affect the other country. IBWC did not provide any reply to questions C.6 to 8 and 10 to 12.

Niger Basin Authority and Centre for Environment and Development for the Arab Region and Europe

186. In its reply to questions C.2 to 8 and 10 to 12, the Niger Basin Authority responded "Not applicable". The Centre for Environment and Development for the Arab Region and Europe did not offer any responses to questions 6 to 8 and 10 to 12.

L. Replies to section C, question 3

If the answer to question C.1 is yes, are there any plans to revise the arrangements/agreements?

1. Replies from Governments

El Salvador, Kenya, Namibia, the Netherlands, Pakistan and Qatar

187. In their replies to question C.3, El Salvador responded in the negative, while Namibia noted "No response" and Kenya, the Netherlands, Pakistan and Qatar stated "Not applicable".

Colombia

188. There are no plans to revise the arrangements or agreements, since none exist. However, the draft Water Act takes into account the points made in the reply to question C.2, in paragraph 181 above.

Mexico

189. There has been work on information-sharing and the development of joint studies to generate technical components as a basis for possible subsequent agreements and on possible components of a potential agreement on the geographical distribution of aquifers, the level of existing knowledge and the diversity of jurisdictions with authority over the resource.

United States of America

190. With respect to IBWC Minute No. 242 between the United States and Mexico, there are no current plans to revise the agreement. With respect to the United States and Canada, the United States is not aware of any current plans to revise annex 16.

2. Replies from intergovernmental organizations

International Boundary Water Commission

191. Information is being exchanged and joint studies are being conducted, with a view to developing technical bases for potential future agreements. Efforts are also being made to identify issues to be covered in a potential agreement, bearing in mind the geographical distribution of the aquifers, existing knowledge and the diversity of jurisdictions over the resources.

M. Replies to section C, question 4

If yes, please describe the main points to be revised (including how it is contemplated to be revised)

1. Replies from Governments

El Salvador, Kenya, Namibia, the Netherlands, Pakistan and Qatar

192. In their replies to question C.4, El Salvador responded in the negative, while Namibia noted "No response" and Kenya, the Netherlands, Pakistan and Qatar stated "Not applicable".

Colombia

193. Colombia reported that, even though no plans exist, the points to be revised are related to the issues discussed in reply to question C.2, above.

Mexico

194. In general terms, there is recognition of the importance of groundwater study, conservation and protection. Therefore, possible components being considered for inclusion in an agreement are the inventory and joint study of aquifers, the establishment and maintenance of a database, the establishment of conservation and protection areas, systematic consultation under the Commission, notification of and response to emergencies and public hearings.

2. Replies from intergovernmental organizations

International Boundary Water Commission

195. In general terms, the importance of studying, conserving and protecting groundwaters has been recognized. Accordingly, consideration is being given to the possibility of including in an agreement matters such as an inventory and joint study of aquifers, the establishment and maintenance of a database, designation of conservation and protection areas, systematic consultations among members of the Commission, notification of and dealing with emergencies and consultation with the public.

N. Replies to section C, question 5

Are there any provisions on the use of water resources?

1. Replies from Governments

Colombia, El Salvador, Kenya, Pakistan, Poland and Qatar

196. In their replies to question C.5, Colombia and Poland stated "Yes", El Salvador responded in the negative, while Kenya, Pakistan and Qatar stated "Not applicable".

Honduras

197. Honduras reported that there are provisions on the use of water resources, including the following:

(a) Article 614 of the Civil Code provides that ownership of the soil includes ownership of the lower strata and of the upper surface within the vertical planes surveyed on the boundaries of the property, as required by the interest of the owner with regard to the use he makes of it. Article 616 of the Civil Code provides that those things which nature has made common to all mankind are not subject to ownership. Their use and enjoyment are determined among the individuals of a nation, according to its laws, and between different nations, by international law;

(b) Article 92 (b) of the General Environment Act stipulates that groundwaters must not be polluted by filtration (of pollutants) into the soil or subsoil;

(c) Article 107 of the same Act stipulates that the State and the population at large shall make every effort to ensure that no negative environmental impact is caused in the national territory as a result of industrial, agricultural, forestry or stock-raising activities carried out in other countries and, to that end, treaties, agreements or international arrangements shall be signed to protect the environment or guarantee the quality of life of the inhabitants;

(d) Article 28 (i) establishes that the management of catchment basins is the responsibility of the Executive Branch;

(e) The last paragraph of article 34 establishes the obligation to draw up a water management plan and conduct an environmental impact study before any hydroelectric, irrigation or other project designed for large-scale utilization of surface or underground waters within the national territory is undertaken;

(f) Article 13 (m) of the General Regulations of the Environment Act provides that collaborative relations shall be established and maintained with agencies that have competence in environmental matters, be they public or private, national or foreign;

(g) Article 4 of the Framework Act on the Drinking Water and Sanitation Sector refers to groundwaters over which municipalities have the right of preference. This is also mentioned in article 24.

198. As may be seen from the aforementioned provisions, Honduran legislation allows for the negotiation and regulation of the use of transboundary groundwaters, once their location and the need for their use has been determined.

199. The relevant provisions of the Civil Code, the General Environment Act, the General Regulations of the Environment Act and the Framework Act on the

Drinking Water and Sanitation Sector were submitted in Spanish and are available for consultation in the Codification Division of the Office of Legal Affairs of the Secretariat.

Mexico

200. Mexico replied that there are no provisions on the use of shared resources.

Namibia

201. Namibia reported that there are no provisions in the agreements that established the Water Commissions on how each State should use the water except for the normal words such as "equitable and reasonable" or "not causing significant harm" or "of mutual benefit" and so forth.

Netherlands

202. The Netherlands reported no provisions in this regard at present. For questions relating to the content and interpretation of the European Commission Water Framework Directive and of the proposed Groundwater Directive, the Commission should be consulted.

Russian Federation

203. The Russian Federation reported that questions relating to the use of transboundary water bodies are settled by each of the parties drawing up "single basin plans for the protection and use of transboundary waters" or "draft water-management and water-protection measures for transboundary water bodies in its territory, which are agreed between the parties"; each party is "obliged to refrain from taking action, in its territory, likely to result in the violation of agreed arrangements for the use of transboundary water bodies".

2. Replies from intergovernmental organizations

Centre for Environment and Development for the Arab Region and Europe, International Boundary Water Commission and the Niger Basin Authority

204. In their responses to question C.5, CEDARE and IBWC responded "No", while the Niger Basin Authority stated "Not applicable".

O. Replies to section C, question 6

If yes, please describe the arrangement, how it works and whether there are any areas where improvements may be needed

Replies from Governments

El Salvador, Kenya, Namibia, the Netherlands, Pakistan and Qatar

205. In their replies to question 6 of the questionnaire, El Salvador responded in the negative, while Namibia indicated "No response" and Kenya, the Netherlands, Pakistan and Qatar stated "Not applicable".

Colombia

206. The applicable rules and their purpose are as follows:

Articles 78, 79 and 80 of the Constitution of Colombia establish that the duties of the State include protection of the diversity and integrity of the environment; promoting environmental education; preventing and controlling the factors involved in environmental degradation; and imposing legal penalties and requiring compensation for damage caused to the environment.

Decree No. 2811 of 1974 (on the National Natural Resources Code) was the first law enacted in Colombia on the environment and natural resources. Specifically, it contains the following articles referring to groundwaters: Article 11, indicates that groundwaters that serve as boundaries or that extend beyond Colombia's frontiers are natural resources; Article 18 makes provision for compensatory fees and pollution taxes; Article 32 deals with prevention with respect to environmental degradation and damage to human health and that of other living organisms; Article 39 addresses the prevention and control of effects harmful to the environment resulting from the use or exploitation of non-renewable natural resources, and mentions conditions and requirements concerning groundwaters; Article 43 relates to rates for water usage; Article 77 has provisions that govern exploitation of non-marine waters in all their states and forms, including groundwaters; Article 78 deals with the exception of meteoric water and groundwater, other water sources are considered surface waters; Article 83 (f) provides that, with the exception of rights acquired by individuals, groundwater strata or deposits are the inalienable property of the State; and Article 138 states that areas will be set aside where dumping polluted, untreated discharge or residual waters in quantities and concentrations exceeding permissible levels is prohibited.

Title VII of the decree is devoted exclusively to groundwaters. Articles 149 to 154 of the title cover issues related to preferences in the use of groundwaters, their protection and exploitation, means of preventing pollution and depletion, changes in the granting of permission to use, taking into account the state of the aquifer and the rational exploitation of the resource. Article 312 explains what is meant by water catchment area or basin. Article 313 provides that, when the boundaries of a basin's groundwaters do not coincide with the watershed, they will be extended underground beyond the separating surface line to include the boundaries of the aquifers whose waters flow towards the basin demarcated by the surface waters. Article 314 stipulates that the public authorities are responsible for organizing the combined use of surface, ground and meteoric waters.

Act No. 373 of 1997 addresses the programme for the efficient use and conservation of water. Article 2 of the act provides for the programme for the efficient use and conservation of water to cover a five-year period and to be based on an analysis of the supply of water from distribution sources and of the demand for water. It is to contain annual targets for the reduction of waste, community education campaigns, the use of surface, rain and groundwaters, incentives and other matters defined by the Regional Autonomous Corporations and other environmental authorities, the water supply and sewerage providers, irrigation and drainage concerns, hydroelectric power plants and other water resource users, as required for the implementation of the programme.

Decree No. 1541 of 1978: Chapter II specifies uses by operation of law, defining the use, exploitation, form and type of concessions for the various categories of water, characteristics and types of concessions, works and improvements for water use, and the use of water for floating and transporting wood.

Act No. 9 of 1979 (National Health Code): this instrument establishes the procedures and means to regulate and control dumping.

Decree No. 1594 of 1984 includes regulations relating to the provisions of the National Natural Resources Code and Act No. 9 of 1979 regarding matters concerning the use of water and residual liquids. With respect to residual water, it defines the limits on the dumping of substances that might have a harmful effect on health or the environment; and it determines the procedures for obtaining authorization for dumping, proposes compensatory fees, methods of laboratory analysis and environmental impact studies.

Act No. 99 of 1993 sets up the Ministry of the Environment, now the Ministry of the Environment, Housing and Territorial Development, establishes the national environmental system and reorganizes the national and regional environmental sector responsible for the management and preservation of the environment and renewable natural resources. It specifies that the Regional Autonomous Corporations are the highest regional environmental authorities in their areas of jurisdiction, with authority to grant permits for the use and exploitation of natural resources and to exercise functions relating to the evaluation, control and environmental monitoring of use of water, soil, air and the other renewable natural resources. It also includes authority to prevent the pollution of natural resources by dumping, emission or incorporation of liquid, solid or gaseous substances or residual matter in any form into waters of whatever type, into the air or the soil, as well as dumping which could damage or endanger the normal sustainable development of renewable natural resources or impede or obstruct their utilization for other purposes, and establishes sanctions for violating environmental rules.

Furthermore, this Act grants to the environmental authorities of municipalities having more than 1 million inhabitants and to those of districts the same authority as the Regional Autonomous Corporations and charges them with the specific task of carrying out works and projects to clean up water flows or deposits affected by municipal dumping.

Act No. 142 of 1994 deals with the system for household public services. The Act establishes the competence of municipalities to ensure the efficient provision of household sewerage services, which include the treatment and final disposal of residual water. Moreover, it specifies that those providing household public services should protect the environment when their activities might affect it.

Act No. 388 of 1997 establishes the principles for territorial management and defines the criteria for soil use. It also specifies the need to protect water sources and aquifer recharge areas.

Act No. 715 of 2001 establishes the general system of participation for resources that the State transfers to territorial bodies. The category of participation for general purposes includes resources for drinking water and basic sanitation. The municipality is responsible for promoting, financing or co-financing projects to clean up watercourses affected by dumping and for

programmes for the disposal, elimination and recycling of liquid and solid residual matter, among other programmes.

Act No. 812 of 2003 concerns the 2003-2006 National Development Plan, Towards a community State. With a view to fostering sustainable economic growth, it establishes a sustainable environmental strategy and, as a priority activity of the integrated water management programme, the prevention and control of pollution by formulating and implementing the residual water management plan, in accordance with the National Council on Economic and Social Policy 3177 guidelines.

The Council on Economic and Social Policy document 3177 of 2002 is concerned with priority action and guidelines for the formulation of the National Residual Water Management Plan. This document defines priorities and guidelines for the formulation of the National Residual Water Management Plan with a view to promoting improvement in the quality of the nation's water resources. It also establishes five priority activities reflected in the need to prioritize management, develop regional management strategies, revise and update the sectoral body of rules, coordinate sources of financing and strengthen an institutional strategy for the implementation of the National Residual Water Management Plan.

Decree No. 3100 of 2003 implements articles 42 and 43 of Act No. 99 of 1993, with respect to the implementation of compensatory fees for the dumping of specific liquids into a body of water. The compensatory fee is a charge for the direct or indirect use of water sources for specific dumping and for its harmful effects on the environment. The decree establishes the Dumping Clean-up and Management Plan.

Resolution No. 372 (1998) establishes the amount of the minimum fees for biological oxygen demand and total suspended solids.

Decree No. 155 of January 2004 implements article 43 of Act No. 99 of 1993, which calls for the establishment of the minimum fee for water resources, including groundwaters, and resolution 240 of March 2004 applies the methodology of decree No. 155/04.

Poland

207. Poland reported that its national arrangements work properly. No improvements are needed. Problems are resolved by the appropriate commissions.

P. Replies to section C, question 7

If the answer to the question C.5 is yes, are there any plans to revise the arrangements/agreements?

Replies from Governments

El Salvador, Kenya, the Netherlands, Pakistan and Qatar

208. In their replies to question C.7, El Salvador responded in the negative, while Kenya, the Netherlands, Pakistan and Qatar stated "Not applicable".

Colombia

209. Decree No. 1729 of 6 August 2002 implements part XIII, title 2, chapter III of Decree Law No. 2811 of 1974 on catchment basins and partially article 5, paragraph 12, of Act No. 99 of 1993, the objective of which is to manage catchment basins. It specifies that the main purpose of catchment basin management is to plan the use and sustainable management of its renewable natural resources, so that proper balance can be maintained or restored between the economic exploitation of such resources and the preservation of the physical and biological structure of the basin, especially its water resources.

210. Catchment basin management designed in this way provides a framework within which to plan the sustainable use of the basin and the implementation of specific programmes and projects directed towards conserving, preserving and protecting the basin, preventing its degradation and/or restoring it.

211. Catchment basin management will take into account, inter alia, the following principles and guidelines:

(a) The special protection required for plateaux and high plateaux, water sources and aquifer recharge zones, which are considered to be of particular ecological importance for the conservation, preservation and recovery of renewable natural resources;

(b) The areas referred to above are of public utility and social interest and should therefore be the focus of conservation, preservation and/or restoration programmes and projects;

(c) In the utilization of water resources, human consumption will be given priority over all other uses and must be taken into account in managing the catchment basin;

(d) Prevention and control of basin degradation, when there are physical or chemical and ecological imbalances in the natural environment which might endanger the integrity of the basin or of any of its resources, particularly its water resources;

(e) Forecasting current and future supply and demand of the renewable natural resources of the catchment basin, including efforts to preserve and restore the natural environment to ensure its sustainable development;

(f) Promoting measures for the conservation and efficient use of water;

(g) To consider threats to the catchment basin, its vulnerability and environmental risks which might affect its management;

(h) The water and weather systems of the basin.

212. Decree No. 1604 of 31 July 2002, which implements article 33, paragraph 3, of Act No. 99 of 1993, indicates the manner in which the joint commissions are to be elected. The work of the commissions, dealt with in article 33, paragraph 3, of Act No. 99 of 1993, is directed towards agreeing on, harmonizing and defining policies for the organization and management of shared catchment basins, taking into account constitutional principles.

Namibia

213. Namibia replied that, with regard to the Kunene River, the Angolan side feels that the agreement that was originally made between the colonial powers (Portugal and South Africa) and subsequently reaffirmed by the countries as independent States is inequitable. The situation of the Orange River is being addressed through a study that will lead to the creation of new infrastructure (a dam) to improve the management of the water resources of the Lower Orange River (along the common border) and thus will lead to new agreements.

Russian Federation

214. There are plans to revise and amend the existing agreements in order to bring them into line with the Convention on the Protection and Use of Transboundary Watercourses and International Lakes of 17 March 1992.[6]

Q. Replies to section C, question 8

If yes, please describe the main points to be revised (including how it is contemplated to be revised)

Replies from Governments

El Salvador, Kenya, the Netherlands, Pakistan and Qatar

215. In their replies to question No. C.8, El Salvador responded in the negative, while Kenya, the Netherlands, Pakistan and Qatar stated "Not applicable".

Namibia

216. Namibia replied that there is nothing to report yet. However, with regard to the Kunene River, a committee has been established to look at the bilateral agreements, and with regard to the Orange River, the committee will advise the respective Governments on the new arrangements and agreements that will be required after the current studies have been completed.

R. Replies to section C, question 9

Are there any provisions on the joint management/control of water resources?

1. Replies from Governments

Colombia, El Salvador, Kenya, Mexico, Pakistan, Poland and Qatar

217. In their replies to question C.9, Colombia and Poland answered "Yes", El Salvador and Mexico responded in the negative, while Kenya, Pakistan and Qatar stated "Not applicable".

[6] United Nations, *Treaty Series*, vol. 1936, No. 33207.

Namibia

218. All the agreements that have established Water Commissions between Namibia and its neighbours contain clauses on the joint investigation, planning and management of water matters of mutual interest.

Netherlands

219. The Netherlands replied that there were no such provisions at present. For questions relating to the content and interpretation of the European Commission Water Framework Directive and of the proposed Groundwater Directive, the Commission should be consulted.

2. Replies from intergovernmental organizations

International Boundary Water Commission and the Niger Basin Authority

220. In replies to question C.9, IBWC stated "No", while the Niger Basin Authority noted that these issues may be provided for in the Shared Vision process.

Centre for Environment and Development for the Arab Region and Europe

221. The Centre for Environment and Development for the Arab Region and Europe replied that it has provisions on joint management, as specified in the tasks described in its reply to question A.4.

S. Replies to section C, question 10

If yes, please describe the arrangement, how it works and whether there are any areas where improvements may be needed

Replies from Governments

El Salvador, Kenya, the Netherlands, Pakistan and Qatar

222. In their replies to question C.10, El Salvador responded in the negative, while Kenya, the Netherlands, Pakistan and Qatar stated "Not applicable".

Colombia

223. Colombia reported that the existing provisions are decree No. 1729 of 2002, which establishes guidelines for the organization and management of catchment basins; resolution 1604 of 2002, which regulates the joint commissions for the organization and management of shared (surface) catchment basins; and decree No. 1541 of 1978, chapter II, which specifies uses by operation of law, defining the use, exploitation, form and type of concessions for the various categories of water, characteristics and types of concessions, works and improvements for water use, and the use of water for floating and transporting wood.

224. As for areas needing improvement, these relate to jurisdiction, procedures, exploration, exploitation, protection of recharge zones and usage fees.

Namibia

225. Namibia replied that this is normally done by conducting joint investigations and studies leading to recommendations that are approved jointly by a committee. Each delegation then advises its Government about the joint decision that was based on the best technical information available to all parties represented on the committee. The Governments may then enter into negotiations about further agreements to give effect to the above-mentioned recommendations.

Poland

226. Poland reported that its present arrangements work properly. No improvements are needed. Problems are resolved by the appropriate commissions.

T. Replies to section C, question 11

If the answer to question C.9 is yes, are there any plans to revise the arrangements/agreements?

Replies from Governments

El Salvador, Kenya, Namibia, the Netherlands, Pakistan, Poland and Qatar

227. In their replies to question C.11, El Salvador, Namibia and Poland responded in the negative, while Kenya, the Netherlands, Pakistan and Qatar stated "Not applicable".

Colombia

228. Colombia replied that the Ministry of the Environment, Housing and Territorial Development is making a great effort to revise the existing body of rules that relate to water resources and, as a result of this joint, inter-agency endeavour, with the participation of the trade unions, academics, the regulated sector and other bodies, it has been possible to agree on a draft Water Act, which seeks to update, harmonize and coordinate, in accordance with the country's needs and conditions, a binding instrument which is applicable and operative.

U. Replies to section C, question 12

If yes, please describe the main points to be revised (including how it is contemplated to be revised)

Replies from Governments

El Salvador, Kenya, Namibia, the Netherlands, Pakistan and Qatar

229. In their replies to question C.11, El Salvador responded in the negative, Namibia noted "no response", while Kenya, the Netherlands, Pakistan and Qatar stated "Not applicable".

Colombia

230. Colombia replied that the subjects for revision are provided for in the draft Water Act, to be reviewed by the specific inter-agency commissions for each of the topics relating to groundwater in the areas already mentioned, namely, research, protection, exploration, exploitation, use and development. These commissions evaluate the proposals in terms of the text, form and content and prepare the final wording of an agreed draft.

Annex

Questionnaire on shared natural resources for circulation to Governments and relevant intergovernmental organizations

The Commission is now focusing on the codification of groundwaters. It is indispensable for the Commission to be provided with as many relevant States practices as possible. The Commission therefore welcomes the inputs from Governments on the following questions:

Questionnaire

A. Are there aquifers in your State that extend beyond the national boundary?

1. If yes, are there any arrangements or agreements with your neighbouring States on the use or management of these aquifers or for any other cooperation for them?

2. If yes, please provide with a copy of the agreements/arrangements.

3. Are there joint bodies/mechanisms among the States concerned on the management or other cooperation of these aquifers?

4. If yes, please provide with information describing the legal basis, role and function of the joint bodies/mechanisms.

B. For federated States: Are there domestic aquifers in your State which extend over the boundaries of political subdivisions?

1. If yes, are there any arrangements or agreements among them on the use or management of such aquifers or for any other cooperation for them?

2. If yes, please provide with similar information as described in questions A(2) to A(4).

C. If the answer to questions A(1) and B(1) is yes, please answer the following questions on the contents of the agreements or arrangements:

1. Are there any provisions on the allocation of water resources?

2. If yes, please describe the arrangement, how it works and whether there are any areas where improvements may be needed.

3. If the answer to question C(1) is yes, are there any plans to revise the arrangements/agreements?

4. If yes, please describe the main points to be revised (including how it is contemplated to be revised).

5. Are there any provisions on the use of water resources?

6. If yes, please describe the arrangement, how it works and whether there are any areas where improvements may be needed.

7. If the answer to question C(5) is yes, are there any plans to revise the arrangements/agreements?

8. If yes, please describe the main points to be revised (including how it is contemplated to be revised).

9. Are there any provisions on the joint management/control of water resources?

10. If yes, please describe the arrangement, how it works and whether there are any areas where improvements may be needed.

11. If the answer to question C(9) is yes, are there any plans to revise the arrangements/agreements?

12. If yes, please describe the main points to be revised (including how it is contemplated to be revised).